



Methods and Applications of Satellite SAR in the Maritime Domain 14-16 January, 2015

Programme

14.01.2015 - Day 1

- 8h30: Registration, tea/coffee
- 09h00-09h15: Opening address: Augustus Vogel* (ONRG)
- 09h15-10h15: Keynote speaker: Clayton Stewart* (UCL) - *Space-based SAR for maritime domain awareness*
- 10h20-10h50: Midmorning tea (30 minutes)
- 10h50-11h15: Marjolaine Krug (CSIR) - *Ocean wind, waves and current observations from SAR in South Africa*
- 11h15-11h40: Lizwe Mdakane (CSIR) - *Bilge dump detection from SAR imagery using local binary patterns*
- 11h40-12h05:
- 12h15-13h15: Lunch
- 13h15-14h15: Keynote speaker: Marco Martorella* (Univ of Pisa) - *Spaceborne ISAR imaging for maritime surveillance*
- 14h15-14h40: Jose da Silva (CIIMAR) - *The effect of the North Equatorial Counter Current on the generation and propagation of internal solitary waves near the Amazon river shelf as observed in SAR imagery*
- 14h40-15h05: Jorge Magalhaes (Univ of Porto) - *Internal solitary waves in the Red Sea: SAR contribution to an unfolding mystery*
- 15h15-15h45: Afternoon tea (30 minutes)
- 15h45-16h10: Oscar Garcia-Pineda* (Florida State Univ) - *Fingerprinting oil thickness on SAR*



16h10-16h35: Roland Romeiser* (RSMAS) - *Current measurements by TerraSAR-X and TanDEM-X along-track interferometry*

16h35-17h00: William Pichel* (NOAA STAR) - *Current NOAA operational SAR-derived high-resolution wind products, and plans for utilizing Sentinel-1*

17h00-17h25: Ralph Foster* (Univ of Washington) - *Sea-level pressure and large-scale PBL coherent structures derived from synthetic aperture radar images of the sea surface under tropical cyclones*

17h30: Michael Inggs - Closing Remarks Day 1

18h00: Get-together (refreshments and finger food)



15.01.2015 - Day 2

08h30-09h00: Tea/coffee

09h00-09h15: Michael Inggs (UCT) - Introduction Day 2

09h15-10h15: Keynote speaker: Johnny Johannessen (Nansen) - *Imaging radar satellites for coastal and ocean application with focus on the seas around South Africa*

10h20-10h50: Midmorning tea (30 minutes)

10h50-11h15: Joel Dabrowski (Univ of Pretoria) - *Contextual behavioural modelling and classification of vessels in a maritime piracy situation*

11h15-11h40: Eric Jürgen Haase* (Denmark Technical Univ) - *Locating historic oil dumping offshore Namibia using oiled-penguin data and satellite radar imagery*

11h40-12h05:

12h15 -13h15: Lunch

13h15-13h40: Willie Nel (CSIR) - *ISAR imaging of maritime targets*

13h40-14h05: Colin Schwegmann (CSIR) - *Ship detection methods in South African waters in synthetic aperture radar imagery*

14h05-14h30: Waldo Kleynhans (CSIR) - *Ship detection in South African oceans using Sentinel-1 SAR data – Early results*

14h30-14h55: Giuliana Pallotta* (CMRE) - *Operational use of space based information for enhancing maritime surveillance capabilities*

15h05-15h35: Afternoon tea (30 minutes)

15h35-16h35: Keynote Speaker: Mehrdad Soumekh* (State Univ of New York at Amherst) - *SAR moving target detection, geolocation and tracking*

16h35-17h00: Bryan Bagnall* (SPAWAR) - *Automated oil slick detection methods using SAR imagery*

17h00-17h25: Sparta Cheung* (SPAWAR) - *Application of RADAR corner reflectors for the detection of small vessels in synthetic aperture radar*



- 17h25: Daniel O'Hagan (UCT) - Closing Remarks Day 2
- 19h00: Dinner in Smuts Hall (on Campus)



16.01.2015 - Day 3

- 08h30-09h00: Tea/coffee
- 09h00-09h15: Pieter de Villiers (CSIR) - Introduction to Day 3
- 09h15-09h40: John Stastny* (SPAWAR) - *A novel automated synthetic aperture RADAR ship detection system*
- 09h45-10h10: Virginia Fernandez Arguedas/Mattia Stolla* (JRC) - *Maritime surveillance support: Ship classification from satellite imagery*
- 10h20-10h50: Midmorning tea (30 minutes)
- 10h50-11h15: Fabio Mazzarella* (JRC) - *Maritime knowledge discovery and activity recognition from historical positioning data*
- 11h15-11h40: Conor Delaney & Alfredo Alessandrini* (JRC) - *Using message brokering and data mediation to leverage oceanography data to help generate auxiliary information for maritime security off the Coast of Africa*
- 11h40-12h05:
- 12h15 -13h15: Lunch
- 13h15: Pieter de Villiers Conference Closing, Tea/Coffee, Wrap-up